

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

XIAO-CHUN MU, ET AL.

Application No.: 09/733,289

Filed: December 8, 2000

For: **MICROELECTRONIC PACKAGE HAVING AN  
INTEGRATED HEAT SINK AND BUILD-UP LAYERS**

Assistant Commissioner for Patents  
Attention: Box Missing Parts  
Washington, D.C. 20231

**RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION**

Sir:

In response to the Notice to File Missing Parts of Application mailed February 16, 2001, please find enclosed:

- (1) a duly executed Declaration and Power of Attorney with respect to the above-referenced patent application;
- (2) a check in the amount of \$130.00 in payment of the surcharge of 37 CFR § 1.16(e);
- (3) a copy of the Notice to File Missing Parts of Application.
- (4) substitute drawings in compliance with 37 CFR 1.84 (if required).


If any additional fee is required, please charge Deposit Account No. 02-2666. An extra copy of the Fee Transmittal is enclosed for deposit account charging purposes.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: March 20, 2001

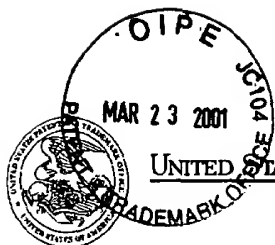
12400 Wilshire Blvd., 7th Floor  
Los Angeles, California 90025  
Telephone: (503) 684-6200

  
Paul A. Mendonsa, Reg. No. 42,879

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to: Assistant Commissioner for Patents, Attention: Box Missing Parts, Washington, D.C. 20231 on: March 20, 2001.

  
Deborah L. Higham

03/20/01  
Date



UNITED STATES PATENT AND TRADEMARK OFFICE

 COMMISSIONER FOR PATENTS  
 UNITED STATES PATENT AND TRADEMARK OFFICE  
 WASHINGTON, D.C. 20231  
 www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/733,289	12/08/2000	Chun Mu	042390.P8875

CONFIRMATION NO. 2980

08791

 BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR  
 LOS ANGELES, CA 90025

FORMALITIES LETTER



\*OC000000005743449\*

Date Mailed: 02/16/2001

## NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

*Filing Date Granted*

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given TWO MONTHS from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is unsigned.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(e) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 130.

---

*A copy of this notice **MUST** be returned with the reply.*

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

03/27/2001 HDENESS1 00000060 09733289

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130.00 09

Please type a plus sign (+) inside this box → +

PTO/SB/17 (12/99)

Approved for use through 09/30/2000. OMB 0651-0032  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
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# **FEE TRANSMITTAL** **for FY 2000**

Patent fees are subject to annual revision.

Complete if Known

Application No.	09/733,289
Filing Date	December 8, 2000
First Named Inventor	Xiao-Chun Mu
Examiner Name	Not Assigned
Group/Art Unit	2811
Attorney Docket Number	42390P8875

TOTAL AMOUNT OF PAYMENT (\$) 130.00

## **METHOD OF PAYMENT (check one)**

1. ☒ The Commissioner is hereby authorized to credit any overpayments to:

Deposit Account Number: 02-2666

Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

- ☒ Charge Any Additional Fee(s) Required Under 37 CFR §§ 1.16, 1.17, 1.18 and 1.20.

- ☐ Applicant claims small entity status. See 37 CFR 1.27.

2. ☒ Payment Enclosed:

- ☒ Check ☐ Credit card ☐ Money Order ☐ Other

## **FEE CALCULATION**

### **1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
101	710	201	355	Utility filing fee	
106	320	206	160	Design filing fee	
107	490	207	245	Plant filing fee	
108	710	208	355	Reissue filing fee	
114	150	214	75	Provisional filing fee	

SUBTOTAL (1) (\$)

### **2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
Independent Claims			
Multiple Dependent			

\*or number previously paid, if greater. For Reissues, see below

### **Large Entity Small Entity**

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
103	18	203	9	Claims in excess of 20
102	80	202	40	Independent claims in excess of 3
104	260	204	135	Multiple Dependent claim, if not paid
109	80	209	40	**Reissue independent claims over original patent
110	18	210	9	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

## **FEE CALCULATION (continued)**

### **3. ADDITIONAL FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
105	130	205	65	Surcharge - late filing fee or oath	130.00
127	50	227	25	Surcharge - late provisional filing fee or cover sheet.	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for response within first month	
116	390	216	195	Extension for response within second month	
117	890	217	445	Extension for response within third month	
118	1,390	218	695	Extension for response within fourth month	
128	1,890	228	945	Extension for response within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,240	241	620	Petition to revive - unintentional	
142	1,240	242	620	Utility issue fee (or reissue)	
143	440	243	220	Design issue fee	
144	600	244	300	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	130	123	130	Petitions related to provisional applications	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	710	246	355	Filing a submission after final rejection (37 CFR 1.129(a))	
149	710	249	355	For each additional invention to be examined (37 CFR 1.129(b))	
179	710	279	355	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	
Other fee (specify)					0.00
Other fee (specify)					0.00

\* Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 130.00

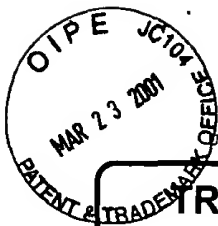
## **SUBMITTED BY**

Complete (if applicable)

Name (Print/Type)	Paul A. Mendonsa	Registration No. (Attorney/Agent)	42,879	Telephone	(503) 684-6200
Signature	<i>Paul A. Mendonsa</i>			Date	03/20/01

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2039.**

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED



SECTOR ~~18~~  
#3

PTO/SB/21 (12/97)  
Approved for use through 9/30/2000. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application No.	09/733,289
	Filing Date	December 8, 2000
	First Named Inventor	Xiao-Chun Mu
	Group Art Unit	2811
	Examiner Name	Not Assigned
Total Number of Pages in This Submission	Attorney Docket Number	42390P8875

ENCLOSURES (check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form  <input checked="" type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Response  <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input checked="" type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i>  <input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition  <input type="checkbox"/> To Convert a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Small Entity Statement  <input type="checkbox"/> Request for Refund	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i>  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Additional Enclosure(s) <i>(please identify below):</i> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"><ul style="list-style-type: none"><li>- Dec/POA signed</li><li>- PTO Form 1533</li><li>- Check for \$130.00</li><li>- Request for correction</li><li>- Copy of filing receipt</li></ul><b>Return Receipt Postcard</b></div>
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Paul A. Mendonsa, Reg. No. 42,879  BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
Signature	
Date	March 20, 2001

CERTIFICATE OF MAILING/TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail with sufficient postage in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: <b>March 20, 2001</b>			
Typed or printed name	Deborah L. Higham		
Signature		Date	March 20, 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.



Receipt #5  
FILE COPY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

Xiao-Chun Mu, et al.

Application No.: 09/733,289

Filed: December 8, 2000

For: MICROELECTRONIC PACKAGE HAVING  
AN INTEGRATED HEAT SINK AND  
BUILD-UP LAYERS

Examiner: Not Assigned

Art Group: 2811

I hereby certify that this correspondence is being deposited with  
the United States Postal Service as first class mail with sufficient  
postage in an envelope addressed Box Missing Parts,  
Commissioner for Patents, Washington, DC 20231 on:

Date of Deposit: March 20, 2001

Name of Person Mailing: Deborah L. Higham

Signature: Deborah L. Higham Date: 3/20/01

Box Missing Parts  
Assistant Commissioner for Patents  
Washington, DC 20231

**REQUEST FOR CORRECTED FILING RECEIPT**  
(filing date granted)

Dear Sir:

Enclosed is a copy of the official Filing Receipt for the above-referenced patent  
application with errors noted thereon in red.

The following inventor's names are spelled incorrectly:

Listed as: Chun Mu

Should be: Xiao-Chun Mu

Listed as: Victoria Henao

Should be: Maria V. Henao

PLEASE GENERATE ANOTHER FILING RECEIPT INCORPORATING THE REQUESTED CORRECTIONS.

THANK YOU.

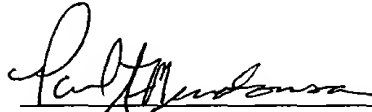
Att. Docket No.: 42390P8875  
Application No.: 09/733,289

If any additional fee is required, please charge Deposit Account No. 02-2666. A Fee Transmittal is enclosed in duplicate for deposit account charging purposes.

Respectfully submitted,

BLAKELY SOKOLOFF TAYLOR & ZAFMAN, LLP

Date: MARCH 20, 2001



Paul A. Mendonsa  
Registration No. 42,879

12400 Wilshire Boulevard  
Seventh Floor  
Los Angeles, CA 90025  
(503) 684-6200

Att. Docket No.: 42390P8875  
Application No.: 09/733,289



## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/733,289	12/08/2000	2811	934	042390.P8875	11	28	4

2HT  
RGW

08791

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR  
LOS ANGELES, CA 90025

**RECEIVED**  
FEB 20 2001

CONFIRMATION NO. 2980

FILING RECEIPT



\*OC000000005743448\*

**BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN**  
LOS ANGELES

Date Mailed: 02/16/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

XIAO - CHUN MU

~~Chun Mu, Residence Not Provided;~~~~Qing Ma, Residence Not Provided;~~

MARIA V. HENAO

~~Victoria Henao, Residence Not Provided;~~~~Steven Towle, Residence Not Provided;~~~~Quat T. Vu, Residence Not Provided;~~**RECEIVED**

FEB 23 2001

B.S.T.Z. DATABASE DEPT.



Continuing Data as Claimed by Applicant

Foreign Applications

If Required, Foreign Filing License Granted 02/07/2001

Projected Publication Date: To Be Determined - pending completion of Missing Parts

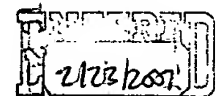
Non-Publication Request: No

Early Publication Request: No

Title

Microelectronic package having an integrated heat sink and build-up layers

Preliminary Class

**RECEIVED**

FEB 26 2001

LAKE OSWEGO

**ENTERED**

FEB 20 2001

STATUS DB-LA

257

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**Data entry by :** GENET, YODIT

**Team :** OIPE

**Date:** 02/07/2001





**LICENSE FOR FOREIGN FILING UNDER**  
**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 36 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15 (b).

**PLEASE NOTE the following information about the Filing Receipt:**

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231